Many women experience changes in their bodies or mood before their menstrual flow begins. However, if a woman has moderate or severe symptoms that make it hard for her to function, she may have premenstrual syndrome (PMS) or a more severe condition, premenstrual dysphoric disorder (PMDD).

What are PMS and PMDD?

Many women experience mild to moderate physical symptoms, such as breast tenderness, pain, or “bloating,” and mild mood changes before their menstrual flow starts. These problems are referred to as PMS.

PMDD is a more severe premenstrual condition that affects about 5% of women during their reproductive years. Although PMDD, like PMS, may include physical symptoms, it always involves a worsening of mood that interferes significantly with the woman’s quality of life. In the days before her period, a woman with PMDD may experience moodiness or anger that seems out of control to her. These symptoms may cause her to avoid friends or relatives during the week before her period. Most researchers consider PMDD a type of mood disorder. Mood disorders are biological illnesses caused by changes in brain chemistry. PMDD is not the fault of the woman suffering from it or the result of a “weak” or unstable personality. It is not something that is “all in the woman’s head.” Rather, PMDD is a medical illness that can be treated.
What are the symptoms of PMDD?
The symptoms of PMDD appear regularly at some time after a woman ovulates in the middle of her monthly cycle. Symptoms generally get worse in the week before her period and then disappear during menstruation. To be diagnosed with PMDD, a woman must have 5 of the following symptoms* before her menstrual flow begins (although not necessarily the same symptoms each month). The symptoms must occur during most menstrual cycles and must interfere significantly with work, school, social activities, or relationships:

- Markedly depressed mood or feelings of hopelessness
- Marked anxiety or tension, feeling keyed up or on edge
- Marked shifts in mood (suddenly tearful, overly sensitive)
- Persistent, marked anger or irritability, increased conflicts
- Loss of interest in usual activities (e.g., work, hobbies)
- Difficulty concentrating and focusing attention
- Marked lack of energy, feeling very easily tired out
- Marked change in appetite, overeating, or food cravings
- Sleeping too much or having a hard time sleeping
- Feeling overwhelmed or out of control
- Physical symptoms (e.g., breast tenderness/swelling, headache, joint/muscle pain, “bloated” sensation, weight gain).

How is PMDD different from other conditions?
PMDD is distinguished from other mood disorders by a characteristic pattern of symptoms. There must be a clear interval of at least 7-10 days during each menstrual cycle when the woman feels well mentally and physically. If a woman is depressed or anxious all month long, even if she feels worse premenstrually, it is more likely that she has another kind of mood problem (such as major depression) rather than PMDD.

When does PMDD begin?
Premenstrual symptoms can begin at any age after a woman begins to menstruate. Some women report that symptoms worsen when they are in their 30s; others associate
the onset of symptoms with a reproductive event, such as a baby’s birth or surgery for
tubal ligation. Premenstrual symptoms do not occur when a woman is pregnant, breast-
feeding (at least during the first few months before menstrual cycles begin again), and
after menopause. Therefore, it appears PMDD symptoms can only occur when a woman
is having menstrual cycles.

Is PMDD inherited?
No specific genes for PMDD have yet been identified. However, genes may play a role in
the development of premenstrual symptoms. Studies have found that it is more likely
for 2 identical twins to be affected than for 2 non-identical twin sisters. The risk of
PMDD also appears to be higher if a woman’s mother had the condition.

What causes PMDD?
We don’t know for sure what causes PMDD, but researchers believe that, like other
mood disorders, PMDD may involve an underlying vulnerability in brain chemistry.
Because of this vulnerability, monthly fluctuations in hormones (estrogen and
progesterone) have a negative effect on the way nerve cells in the brain function,
leading to premenstrual symptoms.

How is PMDD evaluated?
Since PMDD symptoms are related to the menstrual cycle, many women may turn to
their gynecologist for help. On the other hand, since the symptoms that usually bother
patients the most are depression, anxiety, or irritability, women may instead seek
treatment from mental health professionals such as psychiatrists. If a woman decides to
see a mental health professional, she should also be evaluated by a gynecologist,
especially if she is over 40. To confirm the diagnosis of PMDD and distinguish it from
other conditions that are not related to the phase of the menstrual cycle, the doctor
may ask the woman to keep a daily symptom diary. Ideally women should keep such a
diary for 2 months before treatment is begun, although some experts would consider
starting treatment earlier if the symptoms are severe.
How is PMDD treated?

Many treatments for PMDD have been described in the popular press, but only a few have been evaluated in rigorous, large-scale scientific studies. We therefore recently surveyed 36 leading experts in this field about the treatment of PMDD. The recommendations described in this article are based on the results of this survey. The experts recommend that women with severe symptoms use specific prescription medications, which can be supplemented with behavioral approaches and nutritional strategies. For women with less severe symptoms, it may not be necessary to use all 3 approaches at once.

What medications are used to treat PMDD?

To treat the emotional symptoms of PMDD (e.g., depression, tearfulness, mood swings, anxiety, anger, irritability, fatigue, difficulty concentrating), the majority of experts recommend antidepressant medications. Research shows that antidepressants help both the emotional symptoms of PMDD and often the physical symptoms as well. While there are many types of antidepressants available, for PMDD, the experts recommend antidepressants called selective serotonin reuptake inhibitors (SSRIs), which affect a brain chemical called serotonin. SSRIs have also been shown in research to be more effective than other antidepressants in PMDD. The recommended SSRIs are fluoxetine (Sarafem), sertraline (Zoloft), and paroxetine (Paxil) as first choices, with citalopram (Celexa) an alternative. For severe symptoms, antidepressants should be taken throughout the month, although in milder cases, they are sometimes effective if given just during the 2 weeks before the woman’s period. Medications that are used to treat anxiety, such as alprazolam (Xanax), clonazepam (Klonopin), lorazepam (Ativan), and buspirone (BuSpar), may also help some women. In general, the experts did not recommend birth control pills or other types of hormones as initial treatments for PMDD.

If the woman also has severe physical symptoms (headache, cramps, bloating, or water retention), the experts would combine the antidepressant with a medication for these physical symptoms, such as a diuretic, an over-the-counter pain medicine such as...
ibuprofen (Motrin), or a prescription pain medicine, depending on the particular problems.

**What are the side effects of SSRI medications?**
SSRIs may cause nervousness, insomnia, restlessness, nausea, diarrhea, and sexual problems. Side effects differ from one person to another. Also, what may be a side effect for one person (e.g., drowsiness) may be a benefit for someone else (e.g., a woman with insomnia). Most women with PMDD do not report many problems with side effects from SSRIs. To try to reduce the risk of side effects, many doctors start with a low dose and increase it slowly. If you have problems with side effects, tell your doctor right away. If side effects persist, your doctor may lower the dose or suggest trying a different SSRI.

**What nutritional approaches are used to treat PMDD?**
A variety of nutritional approaches may be of some benefit. The most important recommendations include limiting consumption of alcohol, caffeine, and salt. Some experts also advise avoiding sugar and eating more complex carbohydrates. Although studies have found that calcium supplements are helpful for PMS, the experts did not strongly recommend calcium specifically for PMDD. However, calcium supplements are recommended for women because of other health benefits (e.g., reducing the risk of osteoporosis). The experts give little support to vitamins, herbal preparations, and other dietary supplements for PMDD.

**What behavioral approaches are used for PMDD?**
Certain activities may help a woman with PMDD be healthier in mind and body and cope better. Regular exercise is strongly recommended. Although exercise has not been studied specifically in PMDD, it has shown benefit in PMS. Other strategies that may be helpful are relaxation techniques, meditation, and yoga. Psychotherapies that are helpful for depression (e.g., cognitive-behavioral and interpersonal therapies, supportive counseling) may also be helpful for PMDD.
What if the first treatment plan does not help?

It is important to give the treatment enough time to work before considering another. It may take 2 or 3 menstrual cycles to tell. If a woman has given one SSRI a fair trial but it has not helped or has caused very troublesome side effects, the experts strongly recommend switching to a different SSRI. The experts also recommend trying a second SSRI if a woman has had only a partial response to the first one after several menstrual cycles. Remember that changing medication is a complicated process. Do not stop or change the dose of your medication without first consulting your doctor.

If a woman with PMDD has not responded to a variety of recommended treatments, consultation with another medical specialty (gynecology, psychiatry, or reproductive endocrinology) may be valuable if she is not already under such care. Further treatments that may be considered are hormonal medications (e.g., estrogen and birth control pills). For severe symptoms that have not responded to any other strategies, the doctor may also discuss using medication to block ovulation (creating a “chemical menopause”).

What if I need help paying for medications?

- Pharmaceutical Research and Manufacturers Association: your doctor can request a directory of programs for those who cannot afford medication by calling (202) 835-3450
- Lilly Cares Program: (800) 545-6962
- Pfizer Prescription Assistance: (800) 646-4455
- SmithKline Paxil Access to Care Program: (800) 536-0402 (patient requests); (215) 751-5722 (physician requests)
- Solvay Patient Assistance Program: (800) 788-9277
FOR MORE INFORMATION

- National PMS Society, P.O. Box 11467, Durham, NC 27703, (919) 489-6577

- PMS Research Foundation, P.O. Box 14574, Las Vegas, NV 89114, (702) 369-9248 (voice mail)

- PMS Access, P.O. Box 9326, Madison, WI 53715, (800) 222-4PMS

- PMS Self-Help Center, 170 State St., Ste. 222, Los Altos, CA 94022

- U.S. Doctors on the Internet Medical Treatment of PMS
  http://www.usdoctor.com/pms.htm